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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,828	10/24/2003	Daniel James Dickinson	TE9A	9259

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EXAMINER

RODRIGUEZ, RUTH C

ART UNIT	PAPER NUMBER
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3677

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/692,828

Applicant(s)

DICKINSON ET AL.

Examiner

Ruth C. Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6, 11-13, 16, 17, 20, 21, 23-25, 28-32, 38-46, 52-60, 66-74, 79-82, 85-88, 91-94 and 97-100 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims pending in the application are 4-6,11-13,16,17,20,21,23-25,28-32,38-46,52-60,66-74,79-82,85-88,91-94 and 97-100.

DETAILED ACTION

The finality of the rejection of the last Office action is withdrawn. The indicated allowability of claims 4-6, 11-13, 16, 17, 20, 21, 23-25, 28-32, 38-46, 52-60, 66-74, 79-82, 85-88, 91-94 and 97-100 is withdrawn in view of the newly discovered reference(s) to Benedetti (US 4,402,118) and Osterland et al. (US 6,928,705 B2). Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 5, 11, 12, 16, 17, 20, 21, 28, 29, 38, 39, 41-43, 45, 46, 52, 53, 55-57, 59, 60, 66, 67, 69-71, 73 and 74 are rejected under 35 U.S.C. 102(b) as being anticipated by Benedetti (US 4,402,118).

A spring fastener (10) comprises a first side (12) and a second side (14) opposite the first side (Figs. 1-8). The first side is connected to the second side thereby forming a U-shaped structure having a cavity between the first side and the second side (Figs.

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1-8). A bottom portion (54) connects the first side and the second side and a top portion (top part of 56,58). The first side comprises first barbs (68) having first front ends and a first engagement spring (34). The first engagement spring connected to the first side in the vicinity of the bottom portion (Figs. 1-8). The second side comprises second barbs (68) having second front ends and a second engagement spring (36). The second engagement spring connected to the second side in the vicinity of the bottom portion (Figs. 1-8). Each of the first and second engagement springs has a free end (end of 34,36) in the vicinity of the top portion and also comprises a peak (46,48) and an engagement region with a hindrance portion (50,52) between the free end and the peak in the vicinity of the peak (Figs. 1-8). The hindrance portion comprises only one ripple having the form of a depression (50,52). The depression has a deepest part, a back side substantially lacking a front side and a width (Figs. 1-8). The hindrance portion has a surface wherein the depth of each ripple is the distance between the surface of the hindrance and the deepest part of the respective ripple (Figs. 1-8). The ripple provides increased removal force when the fastener is pulled by an extension of a first part engaged to the first and second barbs after the fastener has been inserted into a slot of a second part (Figs. 1-8). The slot has a slot width and edges on which edges a ripple of the hindrance portion is engaged thereby providing the increased removal force (Figs. 1-8). The fastener can be extracted when pulled by the extension without damage to said fastener (Figs. 1-8).

Smith also discloses that:

- The hindrance portion comprises only one ripple (20).

- The back side has the form of a curvature with a gradually decreased slope (Figs. 1-8).
- The barbs are selected from a group consisting essentially of: first barbs being outer barbs and second barbs being inner barbs where the first barbs are outside outer barbs and the second barbs are inside outer barbs and first barbs being inner barbs and the second barbs being inner barbs (Figs. 1-8).
- At least one barb is cut from its respective side, flexible and bent at its respective front end (Figs. 1-8).
- The engagement region is at least partially wider than the rest of the engagement spring (Figs. 1-8).

Regarding claim 38, the same rejection of claim 11 applies to claim 38 that claims an assembly having a first part that comprises an extension (70) and a spring fastener in accordance to claim 11 where the fastener can be extracted when pulled by the rib without damage to the fastener (Figs. 1-8).

For claim 52, the same rejection of claim 11 applies to claim 52 that claims an assembly having a second part with a slot and a spring fastener in accordance to claim 11 where the fastener can be inserted into the slot and extracted when pulled by an extension without damage to the fastener (Figs. 1-8).

Regarding claim 66, the same rejection of claim 11 applies to claim 66 that claims a vehicle comprising an assembly having a first part with an extension and a second part with a slot and a spring fastener in accordance to claim 11 where the

fastener can be inserted into the slot and extracted when pulled by the rib without damage to the fastener (Figs. 1-8).

3. Claims 5, 6, 11, 12, 16, 17, 20, 21, 25, 28-31, 38, 39, 41-43, 45, 46, 52, 53, 55-57, 59, 60, 66, 67, 69-71, 73 and 74 are rejected under 35 U.S.C. 102(b) as being anticipated by Osterland et al. (US 6,928,705 B2).

A spring fastener (20,120) comprises a first side (22,122) and a second side (22,122) opposite the first side (Figs. 1-21). The first side is connected to the second side thereby forming a U-shaped structure (20,120) having a cavity between the first side and the second side (Figs. 1-21). A bottom portion (40,140) connects the first side and the second side and a top portion (24,124). The first side comprises first barbs (26,126) having first front ends and a first engagement spring (28,128). The first engagement spring connected to the first side in the vicinity of the bottom portion (Figs. 1-21). The second side comprises second barbs (26,126) having second front ends and a second engagement spring (28,128). The second engagement spring connected to the second side in the vicinity of the bottom portion (Figs. 1-21). Each of the first and second engagement springs has a free end (end of 28,128) in the vicinity of the top portion and also comprises a peak (at 37,137) and an engagement region (36,136) with a hindrance portion (50,150) between the free end and the peak in the vicinity of the peak (Figs. 1-21). The hindrance portion comprises only one ripple having the form of a depression (50). The depression has a deepest part, a back side substantially lacking a front side and a width (Figs. 1-21). The hindrance portion has a surface wherein the depth of each ripple is the distance between the surface of the hindrance and the

deepest part of the respective ripple (Figs. 1-21). The ripple provides increased removal force when the fastener is pulled by an extension of a first part engaged to the first and second barbs after the fastener has been inserted into a slot of a second part (Figs. 1-21). The slot has a slot width and edges on which edges a ripple of the hindrance portion is engaged thereby providing the increased removal force (Figs. 1-21). The fastener can be extracted when pulled by the extension without damage to said fastener (Figs. 1-21).

Smith also discloses that:

- The ripple width is larger than the depth of the ripple (Figs. 1-21).
- The hindrance portion comprises only one ripple (50,150).
- The back side has the form of a curvature with a gradually decreased slope (Figs. 1-21).
- The barbs are selected from a group consisting essentially of: first barbs being outer barbs and second barbs being inner barbs where the first barbs are outside outer barbs and the second barbs are inside outer barbs and first barbs being inner barbs and the second barbs being inner barbs (Figs. 1-21).
- At least one barb is cut from its respective side, flexible and bent at its respective front end (Figs. 1-21).
- The fastener has a width in the vicinity of the top portion of the fastener that is at least 60% as wide as the slot width (Figs. 10A-11 and 20A-21).
- The engagement region is at least partially wider than the rest of the engagement spring (Figs. 1-21)..

- The fastener further comprises additional lower barbs (137) pointing inwardly and originating from the vicinity of the bottom portions of the first side and the second side of the fastener (Figs. 12-21).
- Each side of the spring fastener has only one upper barb and one lower barb (Figs. 12-21). The upper barb of one side facing the lower barb of the other side and vice versa (Figs. 12-21).

Regarding claim 38, the same rejection of claim 11 applies to claim 38 that claims an assembly having a first part that comprises an extension (24) and a spring fastener in accordance to claim 11 where the fastener can be extracted when pulled by the rib without damage to the fastener (Figs. 1-21).

For claim 52, the same rejection of claim 11 applies to claim 52 that claims an assembly having a second part with a slot and a spring fastener in accordance to claim 11 where the fastener can be inserted into the slot and extracted when pulled by an extension without damage to the fastener (Figs. 1-21).

Regarding claim 66, the same rejection of claim 11 applies to claim 66 that claims a vehicle comprising an assembly having a first part with an extension and a second part with a slot and a spring fastener in accordance to claim 11 where the fastener can be inserted into the slot and extracted when pulled by the rib without damage to the fastener (Figs. 1-21).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13, 32, 40, 54 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osterland.

Osterland discloses a spring fastener with all the limitations listed above in paragraph 4 for the rejection of claims 11. Osterland discloses that the gradually decreasing slope has the shape of an arch in the range of 50-70 degrees. Osterland fails to disclose that arch has a radius of 0.03 to 0.05 mm. However, it would have been obvious matter of design choice to provide the radius of the arch being 0.03 to 0.05 mm, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237, (CCPA 1955).

Osterland discloses a spring fastener with all the limitations listed above in paragraph 4 for the rejection of claims 11. Osterland fails to disclose that the spring fastener has a relief opening in the vicinity of the bottom of the spring fastener. However, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have a relief opening in the vicinity of the bottom of the spring fastener since the Examiner takes Official Notice that having a relief opening in the vicinity of the bottom of the spring fastener is well known in the art to reduce the amount of material being used for the fastener without weakening the fastener.

6. Claims 23, 24, 44, 58 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osterland in view of Vassiliou (US 6,279,207 B1).

Osterland discloses a spring fastener with all the limitations listed above in paragraph 4 for the rejection of claims 17 and 21. Osterland fails to disclose the material from which the spring fastener was made from has a thickness and the front points of the outside barbs are at a distance from the second side smaller than the thickness of the material. However, Vassiliou teaches a spring fastener (10) comprises a first side (18) and a second side (20) opposite the first side (Figs. 1 and 8). The first side is connected to the second side thereby forming a U-shaped structure having a cavity (16) between the first side and the second side (Figs. 1 and 8). A bottom portion connects the first side and the second side and a top portion (26) (Figs. 1 and 8). The first side comprises first barbs (12) having first front ends and a first engagement spring (29). The first engagement spring connected to the first side in the vicinity of the bottom portion (Figs. 1 and 8). The second side comprises second barbs (14) having second front ends and a second engagement spring (31). The second engagement spring connected to the second side in the vicinity of the bottom portion (Figs. 1 and 8). Each of the first and second engagement springs has a free end (Figs. 1 and 8) in the vicinity of the top portion and also comprises a peak and an engagement region with a hindrance portion (29i,31i) between the free end and the peak (Figs. 1-25). The hindrance portion comprises one structure selected from one to three ripples (29i,31i) and each ripple has the form of a depression. The depression having a deepest part, a front side, a back side and a width (Figs. 1 and 8). The hindrance portion having a

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surface wherein the depth of each ripple is the distance between the surface of the hindrance and the deepest part of the respective ripple (Figs. 1 and 8). The ripple provides increased removal force when the fastener is pulled by an extension of a first part engaged to the first and second barbs after the fastener has been inserted into a slot of a second part (C. 4, L. 1-12 and Fig. 8). The slot has a slot width and edges on which edges the engagement region is engaged (Figs. 7 and 8). At least one barb is cut from its respective side, flexible and bent at its respective front end (Figs. 1-8). The material from which the spring fastener was made from has a thickness and the front points of the outside barbs are at a distance from the second side smaller than the thickness of the material (Figs. 1-8). The bent provides additional holding power between the spring and the objection being held within the spring (C. 3, L. 29-60). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the bent at its respective front end of the barb as taught by Vassiliou in the fastener disclosed by Osterland. Doing so, increases the holding power between the spring and the object being held within the spring.

7. Claims 79-82, 85-88, 91-94 and 97-100 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osterland in view of Smith et al. (US 6,381,811 B2).

Osterland discloses a spring fastener with all the limitations listed above in paragraph 4 for the rejection of claims 11, 38, 52 and 66. Osterland fails to disclose a molded body at least under the top portion of the spring fastener and that the elastic body in the form of a gasket extending away from the cavity in the vicinity of the top portion. However, Smith et al. teaches a spring fastener (10) comprises a first side (14)

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and a second side (16) opposite the first side (Figs. 1-10). The first side is connected to the second side thereby forming a U-shaped structure having a cavity (30) between the first side and the second side (Figs. 1-10). A bottom portion (20) connects the first side and the second side and a top portion (18) (Figs. 1-10). The first side comprises first barbs (34) having first front ends and a first engagement spring (22). The first engagement spring connected to the first side in the vicinity of the bottom portion (Figs. 1-10). The second side comprises second barbs (34) having second front ends and a second engagement spring (22). The second engagement spring connected to the second side in the vicinity of the bottom portion (Figs. 1-10). Each of the first and second engagement springs has a free end (Figs. 1-10) in the vicinity of the top portion and also comprises a peak and an engagement region (Figs. 1-10). The gasket is a lip. The lip of the gasket improves the sealing performance of the fastener when inserted to a slot of a solid panel (C. 5, L. 1-28). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to provide a gasket having a lip as taught by Smith et al. for the spring fastener of Osterland. Doing so, gasket improves the sealing performance of the fastener when inserted to a slot of a solid panel.

Response to Arguments

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1. Applicant's arguments with respect to claims 4-6, 11-13, 16, 17, 20, 21, 23-25, 28-32, 38-46, 52-60, 66-74, 79-82, 85-88, 91-94 and 97-100 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Smith et al. (US 6,381,811 B2), Smith et al. (US 6,527,471 B2), Smith et al. (US 6,648,542 B2), Dickenson et al. (US 6,718,599 B2), Smith et al. (US 6,846,125 B2) and Dickenson et al. (US 6,868,588 B2) are cited to show state of the art with respect to spring fasteners having some of the features being claimed by the current application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C. Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

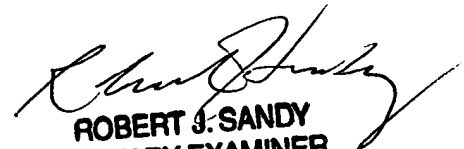
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez
Patent Examiner
Art Unit 3677

rcr
March 17, 2006


ROBERT J. SANDY
PRIMARY EXAMINER